Amendments to the Claims:

A clean version of the entire set of pending claims, including amendments to the claims, is submitted herewith per 37 CFR 1.121(c)(3). This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) A method for translating a communication between Standard Commands for Programmable Instrumentation (SCPI) protocol and .NET protocol, the method comprising:

receiving at an instrument via a communication link a communication from a client comprising a processor and a memory, the communication comprising one of an SCPI protocol command and SCPI protocol query;

when the communication is [[a]] the SCPI protocol command ~~from a client~~,

converting the SCPI protocol command to a .NET protocol command; and

evaluating the .NET protocol command to determine the validity of parameters sent from the client with the SCPI protocol command;

otherwise, when the communication is [[a]] the SCPI protocol query ~~from the client~~,

converting the SCPI protocol query to a .NET protocol query; and

evaluating the .NET protocol query to determine the validity of parameters sent from the client with the SCPI protocol query; and

calling an appropriate Application Program Interface (API) of an instrument application in the instrument, wherein the communication is intended for the instrument application and wherein the API is responsive to method calls in the .NET protocol.

2. (Previously Presented) The method as recited in claim 1, further comprising:

before converting the SCPI protocol command to the .NET protocol command, placing the SCPI protocol command into .NET stream format; and

before converting the SCPI protocol query to the .NET protocol query, placing the SCPI protocol command into .NET stream format.

3. (Previously Presented) The method as recited in claim 1, further comprising:

when the SCPI protocol query or the SCPI protocol command requires response from the instrument application,

forming a .NET protocol response message to the communication;

translating the .NET protocol response message to a SCPI protocol response message, wherein the SCPI protocol response message comprises contents of nodes of a SCPI hierarchical tree structure; and

transferring the SCPI protocol response message to the client.

4. (Previously Presented) The method as recited in claim 3, further comprising:

before transferring the SCPI protocol response message to the client, converting the SCPI protocol response message to SCPI format order.

5. (Original) The method as recited in claim 1, further comprising:

asynchronously receiving an out of band IEEE 488.1 protocol signal from the client;

converting the out of band signal IEEE 488.1 protocol signal to a .NET event; and

transferring the out of band signal IEEE 488.1 protocol signal to the instrument application.

6. (Original) The method as recited in claim 1, further comprising:

when an event occurs in the instrument application,

posting a notice of event occurrence in a status module; and

asynchronously notifying the client of event occurrence.

7. (Previously Presented) The method as recited in claim 6, further comprising:

after asynchronously notifying the client of event occurrence,

receiving a query from the client requesting detailed information regarding the event occurrence;

forming a .NET protocol response message to the query;

translating the .NET protocol response message to a SCPI protocol response message; and

transferring the SCPI protocol response message to the client.

8. (Previously Presented) A computer readable memory device embodying a computer program of instructions executable by a computer, the instructions comprising:

when a communication is a SCPI protocol command from a client,

converting the SCPI protocol command to a .NET protocol command; and

evaluating the .NET protocol command to determine the validity of parameters sent from the client with the SCPI protocol command;

otherwise, when the communication is a SCPI protocol query from the client,

converting the SCPI protocol query to a .NET protocol query; and

evaluating the .NET protocol query to determine the validity of parameters sent from the client with the SCPI protocol query; and

calling an appropriate Application Program Interface (API) of an instrument application, wherein the communication is intended for the instrument application and wherein the API is responsive to method calls in the .NET protocol.

9. (Previously Presented) The computer readable memory device as recited in claim 8, the instructions further comprising:

before converting the SCPI protocol command to the .NET protocol command, placing the SCPI protocol command into .NET stream format; and

before converting the SCPI protocol query to the .NET protocol query, placing the SCPI protocol command into .NET stream format.

10. (Currently Amended) The computer readable memory device as recited in claim 8, the instructions further comprising:

when the ~~query or the command is~~ communication ~~requiring~~ requires response from the instrument application,

forming a .NET protocol response message to the communication;

translating the .NET protocol response message to a SCPI protocol response message, wherein the SCPI protocol response message comprises contents of nodes of a SCPI hierarchical tree structure; and

transferring the SCPI protocol response message to the client.

11. (Previously Presented) The computer readable memory device as recited in claim 10, the instructions further comprising:

before transferring the SCPI protocol response message to the client, converting the SCPI protocol response message to SCPI format order.

12. (Original) The computer readable memory device as recited in claim 8, the instructions further comprising:

asynchronously receiving an out of band IEEE 488.1 protocol signal from the client;

converting the out of band signal IEEE 488.1 protocol signal to a .NET event; and

transferring the out of band signal IEEE 488.1 protocol signal to the instrument application.

13. (Original) The computer readable memory device as recited in claim 8, the instructions further comprising:

when an event occurs in the instrument application,

posting a notice of event occurrence in a status module; and

asynchronously notifying the client of event occurrence.

14. (Previously Presented) The computer readable memory device as recited in claim 13, the instructions further comprising:

after asynchronously notifying the client of event occurrence,

receiving a query from the client requesting detailed information regarding the event occurrence;

forming a .NET protocol response message to the query;

translating the .NET protocol response message to a SCPI protocol response message; and

transferring the SCPI protocol response message to the client.

15. (Currently Amended) A system, comprising:

a ~~parser module~~format converter configured to receive a Standard Commands for Programmable Instrumentation (SCPI) protocol communication from a client via a communication link and to ~~translate~~ convert a stream format of the SCPI protocol communication into a .NET ~~protocol communication~~stream format;

a parser configured to translate commands and queries of the communication having the .NET stream format from the SCPI protocol into a .NET protocol; and

an evaluator module, configured to evaluate the .NET protocol ~~communication~~ commands and queries to determine the validity of parameters sent from the client with the SCPI protocol communication.

16. (Canceled)

17. (Previously Presented) The system as recited in claim 15, further comprising:

a first translator module configured to translate a .NET response from [[the]]an instrument application to a SCPI protocol response.

18. (Original) The system as recited in claim 17, further comprising:

a second format converter module configured to convert the SCPI protocol response in a .NET stream format into SCPI format order.

19. (Original) The system as recited in claim 15, further comprising:

a third format converter module configured to convert an out of band IEEE 488.1 signal into a .NET signal.

20. (Previously Presented) The system as recited in claim 15, further comprising:

a status module comprising an event message queue and a status register wherein the event message queue and the status register store event occurrence information from an instrument application;

an event translator module configured to receive notice of event occurrence from the status module and to translate that notice into a SCPI status notification.